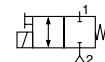




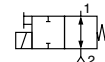
# MINIATURE SOLENOID VALVES

rocker mechanism, fluid isolation  
hose connections

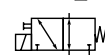
2/2 NC



2/2 NO



3/2 U



2/2  
3/2  
Series  
110

## FEATURES

- Valves for medical analysers, biotechnology, gas analysers
- Can be used to control acids and bases, as well as analytical reagents
- Any application where the fluid may not come into contact with metal parts and with the electromagnetic control section of the solenoid valves
- The valves are ideal for controlling aggressive fluids or when high purity is demanded and have easy to flush internal cavities
- They can also be used as a very small internal volume flow-through sampling valve due to rocker technology
- Hermetic separation of control mechanism and fluid
- Reduced heat exchange between coil and fluid
- Protected manual operator
- The use of first class materials and thorough valve testing ensure high reliability and a lifetime of at least 1 million cycles
- The solenoid valves satisfy all relevant EC directives

## GENERAL

Differential pressure	-0,7 to +2 bar (usable in 0,3 bar abs. vacuum) [1 bar =100 kPa]
Maximum viscosity	20 cSt (mm <sup>2</sup> /s)
Response time	< 20 ms
Internal volume	< 75 µl (connections not included)

fluids (*)	temperature range (TS)	seal materials (*)
liquids or gases	0°C to + 40°C	EPDM (ethylene-propylene)

## CONSTRUCTION

Body	PA12
Internal parts	Stainless steel

## MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

Cover	PA12 (transparent), enabling flow of fluid to be seen
Diaphragm-poppets	EPDM

## ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Duty cycle	100 %
Coil	Two spade terminals 2.8 x 0.5 mm (DIN 46340)
Electrical safety	IEC 335
Electrical enclosure protection	IP40 (EN60529)
Standard voltages	DC (=) : 12V - 24V

(Other voltages on request)

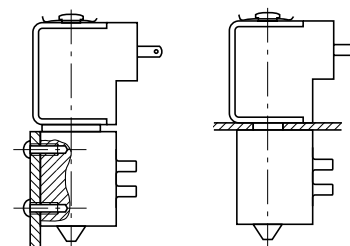
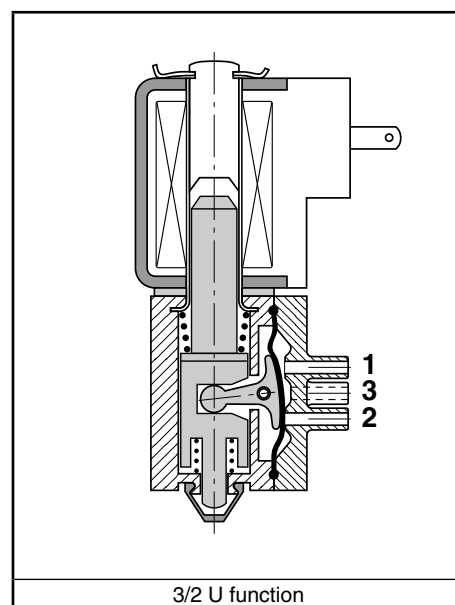
-	power ratings			operator ambient temperature range (TS)	replacement coil		type <sup>(1)</sup>	
	inrush ~	holding ~			hot/cold =	-		=
	(VA)	(VA)	(W)		(W)	(C°)		24 V DC
-	-	-	-	4 / 5	-5 to + 40	-	43004663	01

<sup>(1)</sup> Refer to the dimensional drawings on the following page.

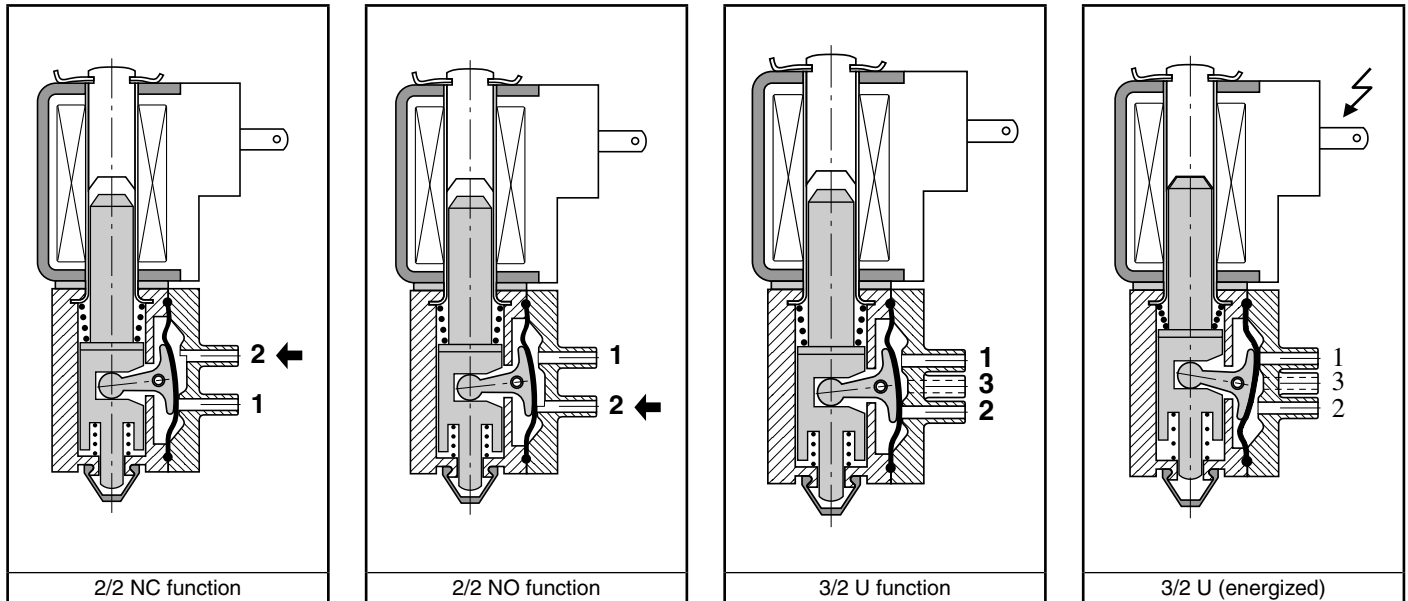
## SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			power coil (W)		catalogue number (protected impulse manual operator)	
				min.	max. (PS)				rear mounting	central support plate mounting
	gases (*)	liquids (*)								
	(mm)	(m³/h)	(l/min)		=	=	~	=	=	=
2/2 NC - Normally closed / 2 connections										
(2)	1,5	0,05	0,75	-0,7	2	2	-	5	11000006	11000010--P2
2/2 NO - Normally open / 2 connections										
(2)	1,5	0,05	0,75	-0,7	2	2	-	5	11000005--P2	11000009
3/2 U - Universal / 3 connections										
(2)	1,5	0,05	0,75	-0,7	2	2	-	5	11000007--P2	11000011--P2
3/2 U - Universal / 4 connections										
(2)	1,5	0,05	0,75	-0,7	2	2	-	5	11000008	11000012

<sup>(2)</sup> Hose connection to ID 1,5 mm flexible tubing.



### PRINCIPLE OF OPERATION

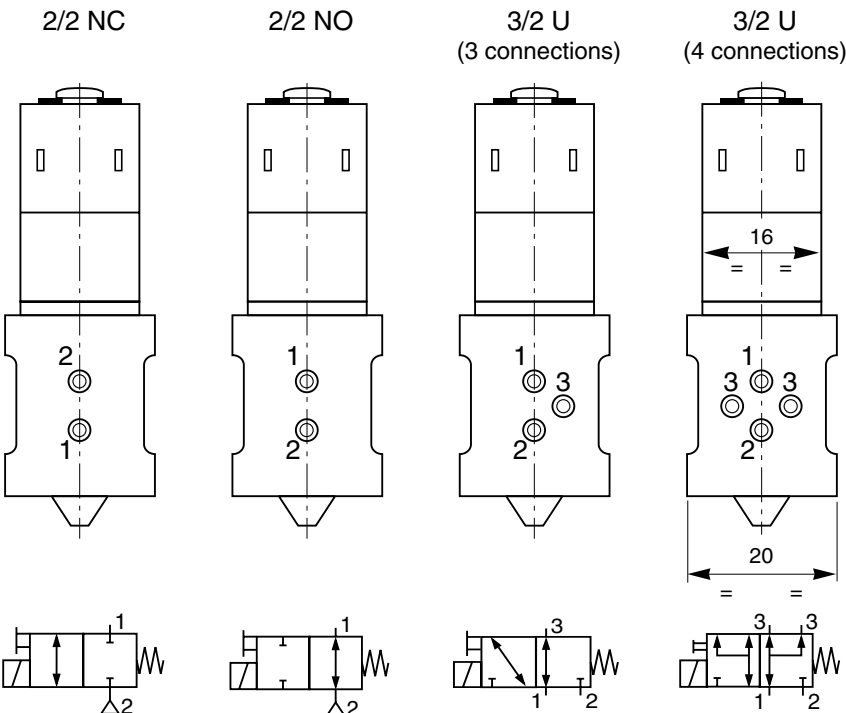


### DIMENSIONS (mm), WEIGHT (kg)

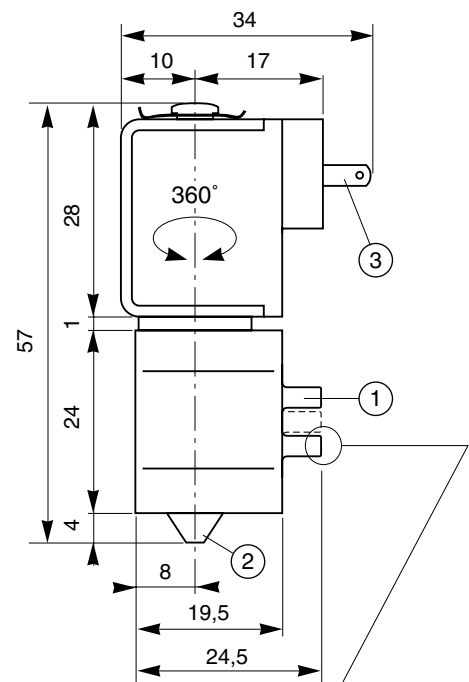


**TYPE 01**  
Prefix "SC" Solenoid  
DIN 43340

11000005..12



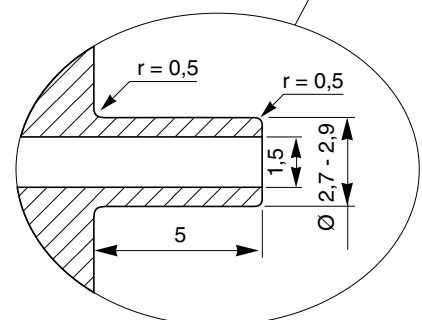
Scale: 1



- ① Hose bibs for connection of ID 1,5 mm flexible tubing
- ② Protected impulse type manual operator
- ③ Coil with two spade terminals 2,8 x 0,5 (DIN 46340)

type	prefix option	weight <sup>(1)</sup>
01	SC	0,46

<sup>(1)</sup> Incl. coil.



Details of hose bib

### OPTIONS

- Stainless steel support plate for mounting between body and coil for:
    - 1 solenoid valve, catalogue number **88211001**
    - 2 solenoid valves, catalogue number **88211002**
    - 3 solenoid valves, catalogue number **88211003**
    - 4 solenoid valves, catalogue number **88211004**
    - 5 solenoid valves, catalogue number **88211005**
  - FPM (fluoroelastomer) diaphragm
- For more, contact us

### INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Rear or control support plate mounting possible (see below)
- Hose connection of flexible tubing Ø 1.5 mm ID
- Compact size and simple tubing (see following page)
- Replacement coils are available
- Installation/maintenance instructions are included with each valve

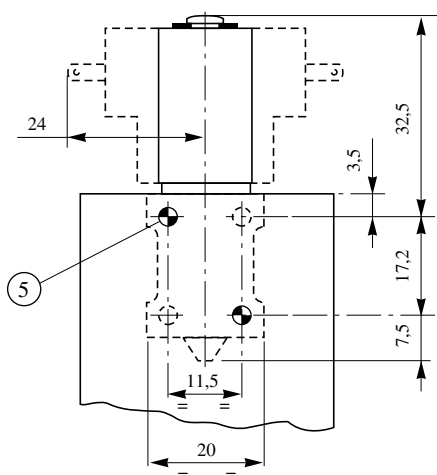
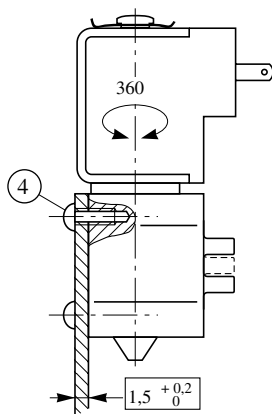
### ORDERING EXAMPLES:

11000006	12V / DC
11000010--P2	24V / DC
catalogue number	voltage

### DIMENSIONS (mm), WEIGHT (kg)

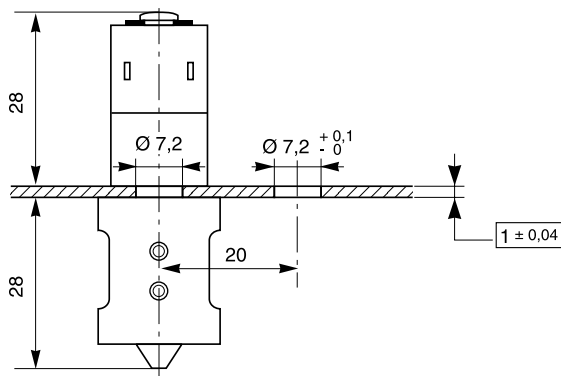


#### REAR MOUNTING



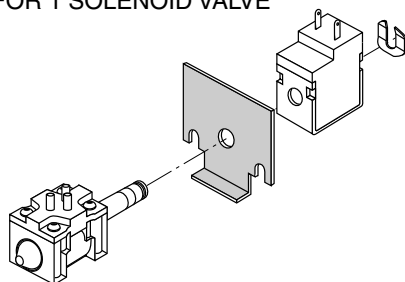
- ④ 2 self thread cutting «Torx» screws K 22 x 6 - A2 stainless steel (screws delivered)
  - use these screws only
  - use plate with correct thickness
  - max. torque: 0,3 Nm
- ⑤ Two mounting holes 2.5 mm dia. Solenoid valve body has four holes for mounting purpose

#### SUPPORT PLATE MOUNTING (For solenoid valve of corresponding type)

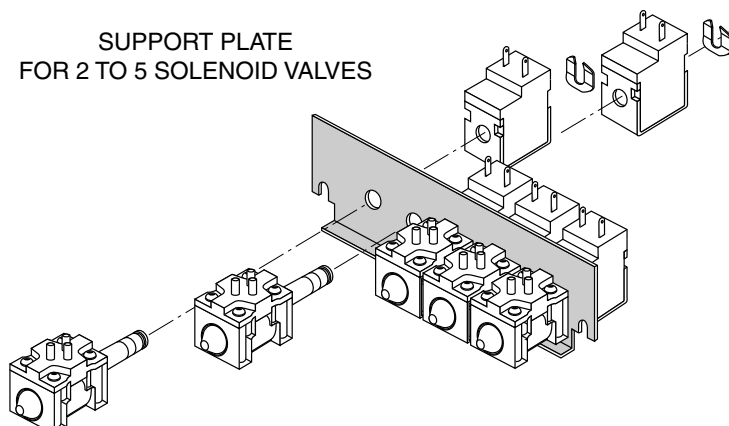



- The panel must be of non-magnetic material.
- To fit to panel, remove the clip and the solenoid valve coil and install as indicated below.

SUPPORT PLATE  
FOR 1 SOLENOID VALVE



SUPPORT PLATE  
FOR 2 TO 5 SOLENOID VALVES



**DIMENSIONS (mm), WEIGHT (kg)** 

SUPPORT PLATE FOR 1 TO 5 SOLENOID VALVES

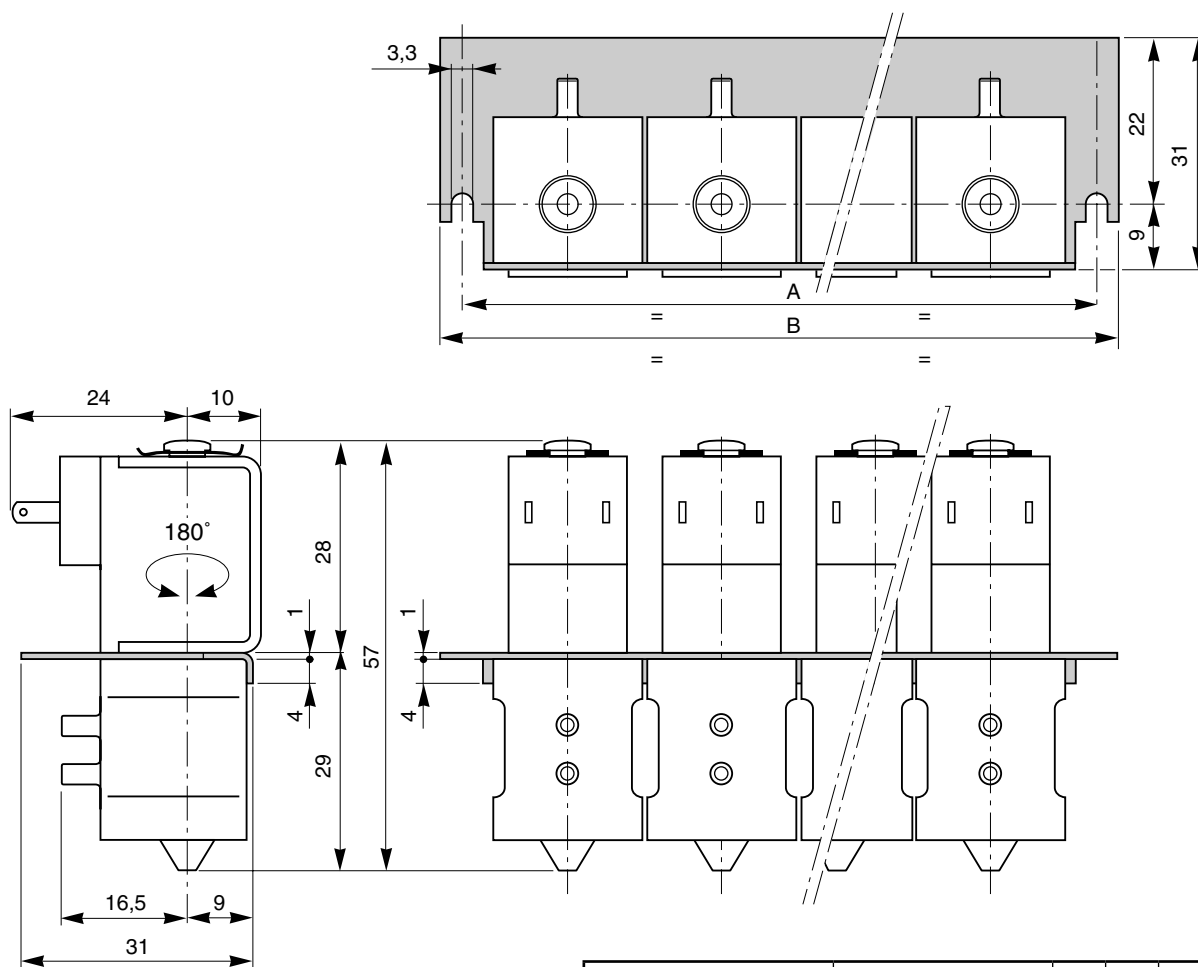


plate for «n» solenoid valves	plate catalogue number	A	B	weight <sup>(1)</sup>
1	<b>88211001</b>	31	40	0,1
2	<b>88211002</b>	51	60	0,15
3	<b>88211003</b>	72	80	0,2
4	<b>88211004</b>	92	100	0,25
5	<b>88211005</b>	113	121	0,3

<sup>(1)</sup> Plate only.

### SIMPLE TUBING

When valves mounted side by side on a support plate, an area is left open so that tubes pass between valve bodies

